IITA Exhibit 2.0

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

ILLINOIS INDEPENDENT TELEPHONE ASSOCIATION	)	
Petition for initiation of an investigation of the necessity of and the establishment of a Universal Service Support Fund in accordance in accordance with Section 13-301(d) of The Public Utilities Act.	)	Docket No. 00-0233
ILLINOIS COMMERCE COMMISSION On Its Own Motion	)	
Investigation into the necessity of and, if appropriate, the establishment of a universal support fund pursuant to Section 13-301(d) of The Public Utilities Act.	)	Docket No. 00-0335

DIRECT TESTIMONY

OF

ROBERT C. SCHOONMAKER

ON BEHALF OF

THE ILLINOIS INDEPENDENT TELEPHONE ASSOCIATION

March 23, 2001

Q. Please state your name and business address.

A. My name is Robert C. Schoonmaker, and my business address is P. O. Box 25969, Colorado Springs, Colorado 80936.

Q. By whom are you employed and in what capacity?

A. I am a Vice President of GVNW Consulting, Inc., a consulting firm specializing in working with small telephone companies.

Q. Would you please outline your educational background and business experience.

A. I obtained my Masters of Accountancy degree from Brigham Young University in 1973 and joined GTE Corporation in June of that year. After serving in several positions in the revenue and accounting areas of GTE Service Corporation and General Telephone of Illinois, I was appointed Director of Revenue and Earnings of General Telephone Company of Illinois in May, 1977 and continued in that position until March, 1981. In September, 1980, I also assumed the same responsibilities for General Telephone Company of Wisconsin. In March, 1981, I was appointed Director of General Telephone Company of Michigan and in August, 1981 was elected Controller of that company and General Telephone Company of Indiana, Inc. In May, 1982, I was elected Vice President-Revenue Requirements of General Telephone Company of the Midwest. In July, 1984, I assumed the position of Regional Manager of GVNW Inc./Management (the predecessor company to GVNW Consulting, Inc.) and was later promoted to my present position of Vice President. I have served in this position since that time

except for the period between December, 1988 and November, 1989 when I left GVNW to serve as Vice President-Finance of Fidelity and Bourbeuse Telephone Companies.

Q. What are your responsibilities in your present position?

A. In my current position, I consult with independent telephone companies and provide financial analysis and management advice in areas of concern to these companies. Specific activities which I perform for client companies include regulatory analysis, consultation on regulatory policy, financial analysis, business planning, rate design and tariff matters, interconnection agreement analysis, and general management consulting.

Q. Have you previously testified in regulatory proceedings?

A. Yes, I have testified on regulatory policy, local competition, rate design, accounting, compensation, tariff, interconnection agreements, universal service, and separations related issues before the Illinois Commerce Commission, the Public Service Commission of Wisconsin, the Michigan Public Service Commission, the Iowa Utilities Board, the Tennessee Public Service Commission, the New Mexico Public Regulation Commission, and the Missouri Public Service Commission. In addition, I have filed written comments on behalf of our firm on a number of issues with the Federal Communications Commission (FCC) and have testified before the Federal-State Joint Board (Joint Board) in CC Docket #96-45 on universal service issues. In July, 1998 I was appointed by the FCC to

serve on the Rural Task Force to make recommendations to the FCC-State Joint Board in CC Docket #96-45 on USF issues for rural companies.

Q. Who are you representing in this proceeding?

A. I am representing the Illinois Independent Telephone Association ("IITA") and its member companies. The analysis I will be presented in this testimony will be for most eligible small Illinois telephone companies, a few of whom are not members of the IITA. Grandview Mutual, a very small company who is eligible for funding under the statute, has not provided the necessary information in order to be included at this point in time within the analysis that I will be presenting in this testimony.

Q. Did you submit testimony in Phase 1 of these dockets on behalf of the IITA?

A. Yes, I did. That testimony was introduced into evidence as IITA Exhibit #1 and had six Attachments. In this testimony, I will be referencing IITA Exhibit #1, Attachment #2, which is the HAI Model Description manual developed by the model developers, and IITA Exhibit #1, Attachment #3, which is the HAI Inputs Portfolio developed by the model developers. Those documents have previously been admitted into the record.

Q. What is the purpose of your testimony?

A. I will be presenting proposals of the IITA to establish an Illinois Universal Service Fund ("IUSF") under the provisions of Section 13-301(d) of The Public

Utilities Act ("PUA"). Section 13-301(d) gives the Commission the authority to establish an IUSF for those carriers who currently receive DEM and IUSF support pursuant to previous Commission Orders. I describe the specific provisions of the statute later in more detail in my testimony.

Q. Is there an urgency to complete this proceeding in an expeditious manner?

A. There is. The Order On Reopening issued by the Commission in Docket No. 98-0679 on December 20, 2000 that extended the Illinois DEM Weighting Fund calls for that Fund to be terminated by September 30, 2001. Support funds that the 29 small companies in the state have received from this Fund will be terminated. If these funds are not replaced, many of these companies will suffer substantial financial harm and may have to seek increases in end user rates to offset the loss of these funds. It is important that the Commission conclude these proceedings in sufficient time before the termination of the DEM Weighting Fund so that a new proposed Fund can be established and provide for a continuity of support funding.

Q. Please comment on the scope of the testimony being filed today and the filings that will be made on April 20, 2001.

A. This testimony is submitted on behalf of the IITA. In it, I will be presenting evidence regarding the IITA's position concerning the need for, and the establishment of, an IUSF and will be addressing statutory requirements of Section 13-301(d). I will also address other interrelated issues regarding potential regulatory changes that could impact the IITA member companies and which will

need to be addressed in these dockets in connection with the IUSF fund, or in some other manner, on an expedited basis.

On April 20, 2001, individual companies (not the IITA) who choose to seek IUSF support will be submitting information and testimony with regard to the simplified rate-of-return analysis and supplying the information requested by Staff. The rate-of-return analysis will be based on year 2000 results with much of the information to come from each company's Form 23A that is due to be filed April 2, 2001 or other suitable annual financial reports acceptable to the Commission. Those analyses have not yet been completed and neither the individual results nor the collective results (which would size the fund) are known at this time. However, based on a partial analysis of only certain companies using 1999 data, it is my present belief that the final size of any fund established for the next year will likely be no more than, and probably less than, the current total Illinois High Cost Fund and DEM Weighting Fund.

I intend to submit testimony on April 20, 2001 that will aggregate the results of the individual company filings so as to size the fund. Depending upon the results of the individual company rate-of-return filings, the IITA may be making additional recommendations and proposals in that set of testimony.

STATUTORY BACKGROUND

Q. Please summarize the significant statutory provisions that are relevant to the establishment of the IUSF you are proposing?

A. Section 13-301(d) states that the Commission shall investigate the necessity of, and if appropriate, establish a universal service fund for those carriers who currently receive funding pursuant to the Commission's Twenty-Seventh Interim Order in Docket No. 83-0142 or the Commission's Orders in Docket Nos. 97-0621 and 98-0679. The statute further details the Commission's obligations in establishing a universal service fund.

Q. Please provide a brief background of the Commission Orders cited in Section 13-301(d) of the PUA.

A. The Twenty-Seventh Interim Order in Docket No. 83-0142 established the High Cost Illinois Universal Service Fund (IUSF). The establishment of the IUSF was part of the Commission's ongoing efforts to shift non-traffic sensitive ("NTS") plant costs out of per minute access charges while mitigating the impact on end users. The IUSF was contemplated in the Fourth Interim Order when the Commission authorized a shift in intrastate carrier common line charges to subscriber line charges over a five year period. The Commission recognized at that time that an IUSF would need to be established in order to reduce the amount of NTS costs shifted to end users. Specifically, the Twenty-Seventh Interim Order states that:

> "The purpose of the IUSF is to mitigate the impact the complete phase out of intrastate NTS costs from interexchange carrier common line charges has on LEC costs which, because of their cost characteristics and size, have few short term alternatives to generate revenue sufficient to recover all such transferred NTS costs other than through significant end user increases." (Twenty-Seventh Interim Order, Docket No. 83-0142, p.2.)

Attached as IITA Exhibit #2, Attachment #1, is a list of carriers who currently receive support from the IUSF and the amounts they received in the year 2000. The Order in Docket No. 97-0621 approved a Stipulation establishing a 1998 Dial Equipment Minutes of Use ("DEM") Weighting Fund. The establishment of a DEM Weighting Fund was necessitated by the FCC's decision to shift federal DEM support from per-minute access rates to an explicit federal fund and the fact that this shift in federal support caused a corresponding decrease in intrastate access charges because of the ICC's mirroring policy. With lower federal access charges to mirror on the intrastate level, independent LECs would have experienced a large decrease in intrastate revenues unless an intrastate DEM Weighting Fund was established. The Stipulation was a one year agreement whereby the Funding Carriers; i.e., GTE, ICTC, Consolidated Communications, MCI, Sprint, Centel, Frontier International, Frontier Services and HTC Communications, agreed to a level of DEM funding that would be received by the companies represented by the IITA. The Order in Docket No. 98-0679, through an approval of a new Stipulation between the Parties listed above, extended the DEM Weighting Fund at a lower level of support until December 31, 2000. Pursuant to the previously mentioned Commission Order On Reopening issued on December 20, 2000, the Fund was extended for an additional period to end no later than September 30, 2001. Attached as IITA Exhibit #2, Attachment #2, is a list of the LECs who currently receive intrastate DEM support and the amount that they received in 2000 pursuant to the Stipulation then in effect. Data for 2000 is presented because it is the last full year that the DEM Weighting Fund

will be in effect and because the rate-of-return analysis will be based on year 2000 results.

Q. Could you comment briefly on the impact of losing the support levels that are shown on Attachment #1 and Attachment #2.

A. Yes. The impacts would be significant, even severe, to both the companies and their customers. As can be seen from the Attachments, on average, the small ILECs receive $9.59 per month per customer in support from these Funds. On an individual company basis, the amount of support varies widely based on individual company circumstances but ranges to levels in excess of $50.00 per month per customer. The bulk of this support comes from the DEM Weighting Fund. Should this funding be lost, individual companies will need to increase rates. These local rate increases would need to be substantial for many companies (and in some cases massive) in order to allow the individual companies to continue to provide service to their customers and meet existing loan obligations. The impacts shown on these Attachments demonstrate why it is so vital for the Commission to reach a decision in these dockets before September 30, 2001 so companies will not suffer the financial losses associated with the termination of the DEM Weighting Fund.

Q. Based on your understanding of the statute and the Orders you just summarized, who would be eligible to receive universal service support if the Commission were to establish an IUSF fund pursuant to Section 13-301(d) of the PUA?

A. The carriers who would be eligible to receive support would be those carriers who currently receive IUSF or DEM support as listed on Attachments #1 and #2.

Q. What findings must the Commission make pursuant to Section 13-301(d) (and implicitly 13-301(e)) prior to establishing an IUSF?

A. Prior to establishing an IUSF, the Commission must:

- define the group of supported telecommunications services that include universal service, including at a minimum those services as defined by the FCC;
- identify the ILECs' economic cost of providing the supported services;
- establish an affordable price, which shall be no less than the existing rates of the supported services;
- identify support to be provided taking into account any federal universal service support received for providing the same services;
- identify all implicit subsidies contained in rates or charges of ILECs, including interexchange access charges, and determine how such funds can be made explicit by the creation of the fund;
- require that all costs of the fund be recovered from all local exchange and interexchange carriers certificated in Illinois on a competitively neutral and nondiscriminatory basis; and
- not permit universal service support cost recovery from another certificated carrier for any service purchased and used solely as an input to a service provided to such certificated carrier's retail customers.

Q. Does your testimony address each of the Commission's obligations listed above.

A. Yes, it does.

SUPPORTED SERVICES

Q. Section 13-301(e)(1) calls for the Commission to identify the services that should be supported by the IUSF. What are your recommendations in this regard?

A. This section of the statute requires the Commission to include, at a minimum, all the federally supported services as services that should similarly be supported by an IUSF. In addition, this section allows the Commission to review existing services and rate structures and the needs of Illinois consumers and to add additional services beyond the federally supported services that it believes are appropriate. We recommend that the Commission adopt the FCC list of supported services at the present time. We make this recommendation both in view of the limited time in which the Commission has to complete this proceeding and because the IITA has no additional services that it would propose to add to the list at this time.

Q. What services do the FCC include in the list of supported services?

A. These services are contained in Part 54.101 of the FCC's Rules and include:

1. Voice grade access to the public switched network
2. Local usage
3. Dual tone multi-frequency signaling or its equivalent
4. Single-party service or its functional equivalent
5. Access to emergency services
6. Access to operator services
7. Access to interexchange service
8. Access to directory assistance

9. Toll control services for qualifying low-income consumers

Q. Are these the services that the IITA proposes be the supported services?

A. Yes. I would note that the FCC has yet to identify the amount of local usage that should be supported.

DEVELOPING ECONOMIC COSTS

Q. In developing the cost of providing the supported services, does the IITA feel that the identification of "economic costs" is the best way of developing these costs?

A. Generally, the IITA members would prefer that the cost of providing these services be based on historical embedded costs, rather than forward-looking economic costs. The historical embedded costs of the company represent the actual investments and expenses that the company has and is incurring in order to provide the supported services. They are based on factual, rather than hypothetical, costs. Further, they represent the costs of providing the actual network and service quality that is in place as opposed to a hypothetical network and a perceived hypothetical service quality associated with that network. The IITA believes any recovery mechanism applied to a small company, whether it is used to establish universal service funding or to establish rates at large, is most appropriately based on the actual costs of the company and not the estimated costs hypothesized by a theoretical cost model. We believe that use of actual costs is the best way to ensure that revenues available to IITA member companies are sufficient and predictable enough to sustain and foster telecommunications investments and to provide service to their customers. This is particularly true in

light of the Commission's requirement (Section 13-301(d) imposes no such requirement) that the companies demonstrate a need for IUSF funding based on their earnings on an embedded cost basis.

Nevertheless, the IITA recognizes that state statutes (Section 13-301(d)) specifically require the use of "economic costs" and have undertaken an effort to develop those costs using tools readily available in the industry.

Q. In the development of costs that you present, have you developed individual cost studies for each IITA member?

A. Yes and no. The studies I will be presenting are calculated at an individual company level and from that standpoint can be considered individual company studies. However, many of the inputs used in calculating the individual company results are national or statewide input factors and do not necessarily reflect an individual company's forward-looking costs. For this reason, the studies may also be considered as "proxy" cost studies rather than individual company cost studies.

Q. Within the scope of the statutes, are there provisions for the use of proxy cost studies?

A. Yes. Section 13-301(d) states:

> "In establishing any such universal service support fund, the Commission shall, in addition to the determination of costs for supported services, consider and make findings pursuant to paragraphs (1), (2) and (4) of item (e) of this Section. Proxy cost, as determined by the Commission, may be used for this purpose."

The IITA believes this gives the Commission substantial latitude in reviewing and approving cost studies presented to it by small LECs to support compliance with IUSF requirements. While the studies I am presenting are calculated on an individual company basis, they rely on proxy input values that are consistently applied to all companies though they may not specifically reflect the forward-looking costs of each individual company. In addition, because of the techniques used in the models to determine serving areas, access lines and the costs for network elements based on averaged inputs, the studies, at a very granular level such as the individual wire center or small company level, may not very accurately represent the costs of that company. In order to fully account for these deficiencies in the model, the IITA believes it is appropriate to consider the group of small companies in the aggregate as a proxy for the group and for its individual members. An analysis based on the group of companies as a whole, we believe, is within the scope of the statute regarding proxy cost studies. Furthermore, because of the deficiencies in the model, we would contend that it is not only within the scope of the statute but a more appropriate measure of the statutory tests than are the individual company results.

Q. Why are you presenting individual cost study results in addition to the combined company results for the Commission's consideration in meeting the statutory criteria?

A. Pursuant to the concerns expressed in the Commission's November 21, 2000 First Interim Order in these dockets that individual company cost study results were not

presented in testimony in that phase of the case, individual cost study results for each company are presented. However, results for all the small Illinois companies combined are also presented for consideration under the proxy cost provisions of the statute. Because of the limitations of the forward-looking cost studies for small telephone companies which I briefly discussed in my prior answer and which I will more fully explain hereafter, the IITA recommends that the Commission consider the costs for the group of companies as a whole as a proxy cost for each individual company in the event the company would not qualify for funding based on an individual company's cost study.

Q. Since you are presenting studies in this testimony which are at least partially in the nature of proxy cost studies, would it be appropriate for an individual company to present a company-specific cost study for consideration by the Commission?

A. Certainly. If an individual company has specific cost circumstances that it feels are not adequately addressed by the studies based on proxy input values, it would be entirely appropriate for the Commission to consider an individual cost study presented by a company. Inherently, the models currently available to assess economic costs are theoretical tools that produce results which may or may not produce results reflective of individual circumstances. The IITA has chosen to use the HAI model with a consistent set of input values for all the companies in an effort to minimize the costs of developing studies, and hopefully, minimize the controversy that needs to be addressed by the Parties and the Commission in this

proceeding. However, the IITA, in no way, means to limit the ability of individual companies to file individual company cost studies now or in the future.

Q. In preparing to develop economic cost studies for IITA members, what steps did you go through in reviewing alternatives for developing these studies?

A. During 1999, in recognition of the statutory requirements to develop economic costs, several IITA members requested GVNW to review available alternatives to develop such costs. Studies were performed for these companies using three alternative models that were available for use by small companies. An evaluation of these models was made for each of the companies. Results of each model were provided to the companies; and an overall evaluation on the ease of use, production of necessary results and acceptability of the models were made. After reviewing the three available models, GVNW recommended to these companies and to the IITA members at large that the HAI Model 5.0a be used as the model tool, with appropriate adjustments to certain of the model inputs.

Q. Can you comment briefly on the two models that were not chosen.

A. Yes. The first was the Benchmark Cost Proxy Model ("BCPM") sponsored by Sprint and U.S. West before the FCC in its universal service docket and in many state proceedings. While the BCPM Model is generally supported by ILECs around the country, and in my judgment, produces a more appropriate representation of loop costs, GVNW felt that use of this model would make it more difficult to obtain results for individual access elements since this model

does not have built-in formats for developing costs at the access element level. We also recognized that use of the HAI Model, supported by IXC parties to the proceeding, might reduce the level of controversy regarding the model used to develop economic costs. For these reasons, we recommended the HAI Model rather than the BCPM Model.

The second model was a model developed by Parrish Blessing and Associates. This model has not been presented to the FCC but has been used in some state proceedings. The model is less sophisticated internally than the HAI and BCPM Models and relies heavily on the use of individual company engineering studies to develop inputs to the model. The development of these inputs is a fairly expensive and laborious process. Simply put, we were concerned about the ability of small companies to conduct such supporting studies and the costs associated with developing inputs to use in conjunction with this model. We were also concerned about the additional controversy that might surround its use since it has not had the same scrutiny as the other models, and thus, we recommended against using this model at this time.

Q. Did the HAI Model generally produce the highest results of the three models?

A. No. Using the HAI default assumptions, the HAI Model generally produced the lowest cost estimates of the three models that were considered.

Q. Did you consider using the FCC's Synthesis Model as a possible alternative?

A. Yes, it was considered for this phase of the proceeding. There were two significant differences between the Synthesis Model and the HAI Model that caused me not to choose the Synthesis Model. In developing costs for interstate USF purposes, the FCC modified the treatment of Network Operating Expenses, Customer Operations Expenses and Corporate Operations Expenses in the HAI modules so these cost inputs are hard coded into the program and are accumulated in the Network Interface Device cost element. Thus, if one uses the Synthesis Model, all of these major expenses would be allocated to the loop cost element and none would be allocated to the access cost elements that must be considered in this proceeding pursuant to a statute. That is sufficient reason to reject the use of the Synthesis Model. Another reason for not using this model is the cost of doing so. While the model and its underlying data have been made available for a nominal fee for use in the FCC's USF docket, the license agreement specifically prohibits the use of the underlying data in a state proceeding without paying a per company fee for the use of the data for state proceedings. Use of the data in a state proceeding would require the payment of tens of thousands of dollars for the small companies.

Q. Can you briefly summarize the reasons why you have chosen to develop the economic costs presented in this case using the HAI Model.

A. Yes. First, the model has been widely available throughout the industry and has been carefully studied by industry participants, the FCC and many state Commissions. Both its strengths and weaknesses are known and have been

evaluated. Second, the parties most likely to have concerns about this proceeding are the interexchange carriers--the supporters of the HAI Model. By using the HAI Model, we hoped to minimize the controversy in this proceeding, thus making it possible for the Commission to conclude the proceeding in a timely manner. Third, the HAI Model produced results in formats that are readily available to identify both the cost of universal service and the cost of individual access cost elements. Fourth, because the model includes default input values necessary to produce cost results for each company, the cost of developing appropriate, or at least acceptable, cost inputs to run the model are minimized. Fifth, by reviewing and modifying a relatively small number of inputs, we felt we could develop adequate estimates of economic costs to satisfy the statutory requirements.

Q. Do you have any misgivings or concerns about using the HAI Model to develop economic costs for the IITA members?

A. In spite of the fact that I recommended to the IITA members that they use this tool as the best available to develop the costs they needed to for this proceeding, I have concerns about the validity of the results of the HAI Model I am presenting. These concerns include:

1) A number of general concerns about using proxy cost model tools to develop "economic costs" as opposed to using actual embedded costs of the company. One of the concerns in this regard is the potential discontinuity between using "economic costs" for developing the costs of

certain access elements, for example, while using historical costs to develop an overall company revenue requirement.

2) A lack of sufficient time and resources to fully explore all the proposed default inputs. While I proposed a number of changes to these inputs, there are others, such as the cost of cable and digital loop carrier equipment, that we have not had time to test against the forward-looking costs of such items for small companies in Illinois. I am concerned that the costs may not reflect the economic costs of the companies in all respects.

3) A general concern about testimony presented in other proceedings that I have reviewed has led me to the conclusion that the HAI Model tends to understate the amount of loop plant needed to build a real network.

4) A concern that the use of broad inputs and generalized formulas for all companies, rather than specific inputs for individual companies, tend to mask unique circumstances of individual companies, which cause substantial differences in costs in the real world.

5) A concern that use of models with input values that are difficult to verify and easy to manipulate may lead to the use of models to develop cost numbers that have questionable validity but may cause substantial company and customer impacts.

6) A concern that the model results for small companies from models like the HAI Model produce results that vary widely from comparable actual data and in a manner inconsistent with forward-looking costs raising

substantial questions regarding the validity of the results for individual small telephone companies. If these results are used solely on an individual company basis to specifically determine eligibility for IUSF funding, anomalies in the studies related to individual companies may result in either too much, or too little, funding for the individual companies.

7) A concern that results from the model are likely to be less accurate for smaller geographic areas, such as individual exchanges or small companies with a few exchanges, than they are for large companies, such as Ameritech or Verizon who have hundreds of exchanges. This concern is due both to techniques used to generate customer locations and data in the model and to a recognition that the law of averages leads to offsetting impacts between individual areas within a large group of exchanges that may not occur in a small company or a single wire center. A review of the access lines developed by the model compared to actual company lines, for example, shows significant differences on an individual company level.

Q. Is there support for your concerns in this regard in proceedings before the FCC?

A. Yes, there is. While the FCC adopted its Synthesis Model for use in developing costs for federal universal service purposes for non-rural companies, it had concerns about the validity of that model for rural companies. To more fully evaluate these models and policies regarding universal service for rural

companies, the FCC appointed a Rural Task Force ("RTF") consisting of 18 representatives of a wide variety of stakeholders in the federal USF process. The RTF's unanimous recommendation, which was filed with the FCC in September, 2000, rejected the use of the current Synthesis Model for use for rural companies for federal universal service determination. That recommendation was approved unchanged by the federal Joint Board on Universal Service and is awaiting final FCC action. The RTF White Paper #4, A Review of the FCC's Non-Rural Universal Service Fund Method and Synthesis Model for Rural Telephone Companies, provided an extensive analysis of the Synthesis Model and its use for rural telephone companies. This Paper provided the factual support that led to the RTF Recommendation. While that analysis was completed on the Synthesis Model, rather than the HAI Model, much of the analysis and conclusions would be applicable to the HAI Model as well since the Synthesis Model incorporates much of the HAI Model logic. Of particular significance is this observation made by the RTF on page 10 of the above-referenced White Paper.

> "The aggregate results of this study suggest that, when viewed on an individual rural wire center or individual Rural Carrier basis, the costs generated by the Synthesis Model are likely to vary widely from reasonable estimates of forward-looking costs. In fact, much of the data analysis suggests that the model results tend to be in the high and low extremes, rather than near the expected results for the area being analyzed."

Q. Given these concerns, do you still support the economic costs that you have developed?

A. Yes. Given the statutory requirements in Illinois and the current state of tools that are available to develop such cost results at a reasonable cost to the companies, I believe the costs developed are adequate representations of the economic costs of these companies for meeting the statutory requirements. However, I specifically have concerns about giving too much reliance to individual company results when those results reflect a single exchange or only a few exchanges. I believe it is incumbent on the Commission to not only review the individual company results but to review and use the results of these studies for the group of companies as a whole under the proxy provisions of the statutes in making its determination whether the statutory requirements are being met. I believe this is particularly important in light of the Commission's clear direction that ultimately the level of funding should reflect company need as determined by its overall revenue requirement using embedded costs.

OVERALL DESCRIPTION OF THE HAI MODEL

Q. Can you briefly describe the historical background of the HAI model.

A. The HAI model was initially known as the Hatfield Model, developed by Hatfield Associations, a consulting firm in Colorado, at the request of AT&T. The model was developed with the intent of providing a tool to develop the forward-looking cost of the telephone network throughout the United States as the cost basis for universal service support and to develop the estimated cost of unbundled network elements ("UNEs') for interconnection proceedings under Section 252 of the Telecommunications Act of 1996. As the model faced scrutiny in various state

and federal proceedings, it underwent continued development and modification through a series of versions over a several year period of time. Generally, the later versions were more sophisticated in the cost development methods and techniques than were earlier versions of the model. Version 5.0a of the model, which we are proposing to use to develop the costs presented in this proceeding, was the latest version presented in formal comments to the FCC in CC Docket #96-45, the federal USF proceeding.

Q. Can you briefly describe the overall design of the model.

A. Yes. The model is designed in several different modules that interact and are interconnected to produce the overall model results. The modules develop the costs for various network elements and for the overall cost of the firm. Modules include a module to develop the cost of distribution and feeder plant, a module for developing the cost of switching and interoffice plant, a capital cost module and an expense module. Results of all these modules are fed into a series of model output reports. A much more complete description of the model design is included in the Model Description manual developed by the model developers and included as IITA Exhibit #1, Attachment #4 to my Direct Testimony filed in Phase 1 of this proceeding.

Q. Can you briefly describe the default model inputs?

A. Yes, The HAI model has well over a thousand different user changeable model inputs, including physical equipment characteristics, cost relationships to

geographical factors, traffic characteristics, unit costs of telephone plant, costs of installing telephone plant, depreciation factors, capital costs and expense ratios. To assist users in being able to use the models quickly, the developers have populated the model with default values that based on their research, judgment and evaluation represent appropriate values for each input element. These values are known as the default input values. When running the model, the user can either use these default values or individually change as many of the values as the user believes are appropriate. IITA Exhibit #1, Attachment #5, to the Direct Testimony that I filed in the first phase of this proceeding, the HAI Inputs Portfolio, is a document developed by the model developers which describes each individual input item, the default value and the model developers' rationale and support for adopting the particular default value.

DESCRIPTION OF DEFAULT INPUT CHANGES

Q. In the cost studies you present in this testimony, have you used the default values exclusively as the input values?

A. No. While we have used the default values for a large portion of the inputs, we have not used them exclusively. Based on prior experience in other states and at the national level using the models and based on testing individual inputs in conjunction with the cost development for this case, I have modified a number of the default inputs.

Q. Can you make some general observations with regard to why you modified some of the default inputs?

A. Yes. There were a variety of reasons for modifying various inputs, which I will describe in detail later in this testimony. In some cases, inputs were modified to, in my opinion, reflect the operation of rural companies as compared to the large urban Bell Operating Companies whose operations are generally reflected in the default inputs. In other cases, inputs were modified to reflect the specific circumstances in Illinois rural areas as compared to the wide variety of geographic conditions throughout the United States. In other cases, inputs were modified to reflect judgmental differences with the HAI Model proponents regarding the forward-looking cost characteristics of certain inputs.

Q. Did all of the input changes you propose increase the universal service cost results?

A. While many of them resulted in universal service cost or access cost increases, others resulted in universal service cost or access cost decreases. In each case that changes were made from the default inputs, they were made with the intent of better reflecting the forward-looking costs of the IITA member companies based on circumstances within Illinois.

Q. Have you prepared a description of the default inputs that the IITA has changed?

A. Yes. IITA Exhibit #2, Attachment #3, is a document outlining the input items that the IITA changed from the default values in its development of economic

costs for this case. IITA Exhibit #2, Attachment #4, is an output report from the HAI Model showing the specific model inputs changed and the specific values used for each of these inputs. In the following section of my testimony, I will discuss in greater detail the reason for each of the changes made in the default inputs.

HAI INPUT CHANGES

Q. Would you please describe the rationale for changing the plant type assumptions as outlined in Item #1 of Attachment #3.

A. Yes. The HAI Model develops costs of distribution and feeder plant in nine different density zones. One of the series of input items in these density zones are inputs to designate the type of plant (aerial, buried or underground) that is used for feeder and distribution plant. There is a similar input for the type of plant in interoffice facilities, as well. The default inputs for these items vary between density zones based on the model developers' estimates of the type of plant built in these zones on a nationwide basis. Even in the most rural zones, the default inputs assume that a substantial amount of aerial plant will be constructed. In Illinois, based on a number of factors related to geography, weather and cost of construction, it has been standard practice in the smaller companies in the state to build buried plant for distribution plant, feeder plant and interoffice plant. As one travels through the rural areas of the state served by the small ILECs, it is relatively rare to see any aerial plant. In most areas, buried plant is used

exclusively, although there are some in-town areas where underground plant is constructed in some circumstances.

Based on these observations, the IITA has developed its costs by changing the model inputs in all appropriate places to reflect a larger percentage of buried plant as the method of outside plant construction from that used in the default assumptions. In the four lowest density zones, buried plant has been assumed to be 95% of the plant constructed, with aerial plant the remaining 5%. In the fifth and sixth zones, 85% buried, 5% aerial and 10% buried plant has been assumed. No changes have been made in the eighth and ninth density zones because none of the small company lines fall within these zones. We believe this is more reflective of Illinois circumstances than are the national default inputs.

Q. Why have you set the Fraction of Buried Plant Available for Shift parameters to zero as discussed in Item #2 of Attachment 3?

A. These inputs are included in the model to allow the model to change the assumption regarding the amount of buried plant that would be constructed, as discussed in my previous answer, based on internal cost calculations made by the model. The model would substitute aerial plant for buried, if based on model calculations, aerial plant was less expensive. The IITA is proposing that this value be set at zero so the model reflects the buried plant construction types as discussed above. Some of the factors that lead to the large proportion of buried plant construction in Illinois may not be fully reflected in the default cost

assumptions; and without this change, the model might not construct the full level of buried plant we believe is appropriate.

Q. Item #3 of Attachment #3 discusses changes made in the structure sharing default assumptions. What is meant by structure sharing?

A. In the HAI Model, the costs of the cable and its installation are separated from the cost of the structures (poles for aerial cable, trenches and plastic tubing for buried cable, and conduit for underground cable) built to "carry" the cable from one location to another. The structure costs are developed using separate input amounts and are calculated separately. The structure sharing assumptions are built into the model to reflect circumstances where these structures may be able to be used by a utility other than the telephone company; and the costs of the structures may be borne by these other companies, thus reducing the effective cost to the telephone company.

Q. Can you give some real world examples where structures might be shared?

A. Yes. The most common example is probably with the use of pole lines. In many locations, particularly in town locations, one utility builds a pole line and other utilities rent space on the poles to place their own facilities. Where an aerial plant is used by both electric and telephone utilities, they frequently share a single pole line. In addition, in many "in-town" situations, a cable TV company may also place its facility on some of the same pole lines.

In some new subdivision construction, trenches dug for utilities may be shared by electric, telephone and cable TV companies. When electric facilities are involved in sharing of trenching, there is typically a significantly increased cost to the cost of the trench to meet code requirements for separation of electric cables from telephone and cable TV facilities.

In urban locations, conduit facilities may be placed to service multiple utilities in order to minimize the street disruption of placing additional facilities in the future and to maximize the use of below street surface land space.

Q. Can you, in general terms, describe the conceptual assumptions underlying the HAI default structure sharing assumptions?

A. Yes. There are several key conceptual assumptions that are inherent in the HAI default assumptions regarding structure sharing. First, the modelers assume that not only is the telephone network being hypothetically totally reconstructed but the electric, cable TV and competitive telecommunications services networks are being constructed at the same time so that structure sharing of trenches, conduit, etc. can take place. Second, the modelers assume that, in the future, there will be high motivations for these various utilities to share structures and build facilities using the same kind of plant in the same areas. Third, the modelers assume that the cost of structure construction will be unchanged from typical telephone plant construction even with the addition of other utility facilities associated with the structure. While this may be reasonably true for aerial construction, it is not true

for buried construction where code requirements for buried electric service requires significantly deeper construction for electric plant than for telephone plant.

Q. Can you describe the specific assumptions encompassed in the HAI Model regarding structure sharing for buried plant?

A. Yes. The HAI Model default assumptions assign 33% of the cost of the structure to the telephone company for buried structures in the lower density bands. This presupposes that in these density bands, buried telephone company plant will be accompanied by a buried electric facility and a buried cable TV facility, with no increase in the cost of the facility because of the presence of the other two facilities.

Q. Do you believe this assumption is at all realistic?

A. No. My opinion is that it has little relationship to reality. To put this assumption into perspective, let me first indicate for the four lowest density bands the size of an average "lot" that would be inherent at the maximum level of the density band assuming all households had equal size lots. They would be as follows:

Band 1	0-5 lines/sq. mile	128.0 acres
Band 2	6-100 lines/sq. mile	6.4 acres
Band 3	100-200 lines/sq. mile	3.2 acres
Band 4	200-650 lines/sq. mile	.98 acres

From my experience in talking with clients about their communities throughout the mid-western and western parts of the country, there would be no cable TV provider in at least the first two density bands; and the provision of cable TV

service in Band 3 areas would be spotty. There would probably be a cable TV provider in many, though not all, of the Band 4 areas. However, in these areas, a large portion of the cable TV is aerial and constructed using the electric poles. The likelihood of the cable TV provider sharing buried structures with the telephone company in any of these areas is remote.

As to the electric utilities, my experience in driving through rural areas is that electric service is provided primarily by the use of aerial plant while the telecommunications facilities use primarily buried facilities. My impression is that there are strong economic reasons why electric plant is generally aerial while the telephone plant is buried. I do not see any evidence to suggest that in rural areas this difference in plant construction will suddenly change in the electric industry. Thus, there is little reason to believe that there will be any appreciable structure sharing with the electric industry.

Q. Based on your observations, what assumptions has the IITA proposed regarding structure sharing?

A. Based on our perception of the limited to non-existent likelihood of sharing buried structures, the IITA is proposing that the structure sharing for buried and underground plant for the lower seven density zones be set at 100%, that is the full cost of the buried structures are assigned to the telephone company. For aerial cable, a 100% structure sharing assumption is assumed for the first three zones, but a 50% assumption is used in Zone 4 and higher where telephone company aerial cable, if built, frequently shares poles with the electric company.

Q. Why is the IITA proposing to change the end office switching investment input, Item #4 on Attachment #3?

A. Our analysis indicates that the default input value is not representative of the cost of end office switching equipment for small companies and small switches. The default switching input value that is used by the HAI modelers is based on an analysis of switch costs for larger companies (Bell Operating Companies and GTE) that were publicly available. The input value is used in a fairly straight line formula based on number of lines. In viewing results of the default analysis, it is clear that the input does not correctly estimate the cost of switching for small offices.

We also did an analysis comparing the default model results with the actual investments incurred by companies for COE switching in Illinois. With the default inputs, the COE switching investments produced by the HAI Model were slightly more than 50% of actual COE switching investments for the small Illinois companies. I believe that is a strong indicator that the default input is generating inappropriate results for these companies.

Q. Are comparisons between model results and actual investments and expenses always an appropriate test of the model results?

A. No, not always. Since the model is developing a cost for a forward-looking network, comparisons would not be valid if the network elements being developed are of a different design than that actually being used. Since the model

is generating forward- looking costs, there may be differences between the model and actual results because of differences in cost (either up or down) when actual plant was purchased as compared to the forward-looking cost of the plant. There may also be differences between costs developed by the model and actual costs because the model does not develop costs for all of the functions that an actual company may be performing. In making comparisons between model results and actual results, all of these factors need to be taken into account.

Q. What is your assessment of the validity of comparing the cost of central office switching equipment from the model to actual costs?

A. This is one area where I believe comparisons are relatively meaningful. If one reviews the forward-looking technology for switching, one finds it includes digital central office switches, both host and remote, that are generally equipped with currently required functions and features including SS7 signaling capability. When one reviews the switching equipment actually in use in the small Illinois companies, one finds digital central office switches, both host and remote, that are equipped with these features and functions. These switches include such recently required capabilities as interchangeable NXX codes, four-digit CIC code capability, intraLATA presubscription, and in most cases, SS7 signaling. Companies will be upgrading the switches during the coming year to provide features required by the Communications Assistance for Law Enforcement Act ("CALEA").

Most of the small companies in Illinois are using at least their second generation of digital switching equipment. The equipment is relatively new (probably on the average between four and eight years old) and has been upgraded since installation, as needed. While it is generally believed that the cost of switching equipment has been falling over time, the falling costs of hardware have been at least partially offset by increasing costs of switching software. Overall, it is my belief that the model costs for forward-looking COE switching equipment should be relatively close to, though possibly somewhat less than, actual costs. In my mind, the nearly 50% difference between the model and actual costs for this equipment indicates that the model costs do not truly reflect the forward-looking costs of this equipment.

Q. What are you proposing as the default input for central office switching investment?

A. The default input for this value is $416.11 per line. Based on my review of this factor and the resulting investment to actual investments, I am recommending that the value be increased to $658.25 per line. Using this value, the COE switching investment for the Illinois companies produced by the model results in an amount approximately 94.5% of the actual investment in 1998.

Q. Why have you increased the input value related to the percent of interLATA and intraLATA traffic switched at the tandem switch as indicated in Item #5 of Attachment #3?

A. The default value for this input is 20%, indicating that 20% of interLATA and intraLATA traffic is switched at a tandem switch and 80% of the traffic is trunked directly from an end office to an interexchange carrier. While I can't comment on the validity of the assumption on a nationwide basis, for the small Illinois companies, a large portion of their interLATA and intraLATA traffic is switched through a tandem switch rather than being trunked directly from an end office to an interexchange carrier. In some cases, interexchange carriers do have direct trunk groups to individual small Illinois companies. An analysis of a number of the companies indicated that about 10% of the traffic for those companies was carried on direct trunks. The value for these inputs have, therefore, been changed to 90%.

Q. Can you please explain your rationale for changing the default assumption related to Item #6, on Attachment #3, the percent of Total Interoffice Traffic Fraction?

A. Yes. This factor estimates the total portion of the traffic originated in the central office that has to be switched to a second switching site for termination of the traffic and is a significant factor in developing the cost of interoffice facilities. It is also used in conjunction with estimates of toll traffic to determine the portion of local traffic that is switched on an interoffice basis and impacts the cost of local service. For large urban companies, this may represent traffic that is switched between multiple wire centers in a single exchange. For rural companies, it would represent traffic that is commonly designated as Extended Area Service ("EAS") traffic that is switched between exchanges. Using the default

assumptions, the model estimates that 48.69% of local traffic is interoffice traffic and develops and assigns costs to the USF cost to account for this usage.

Based on a review of data from a majority of the small cost study companies in Illinois, we have determined that approximately 22% of their local traffic is EAS traffic. We have thus reduced the default total interoffice input percent from 65% to 45%. This produces a revised local interoffice traffic percentage of 19.4%, a value much more representative of small Illinois company operations. The results of this change are to significantly reduce the USF cost developed by the model.

Q. Do you agree with the default assumptions that develop the cost of capital as indicated in Item #7 of Attachment #3?

A. No. I believe the cost of capital assumptions in the default scenario are not appropriate. The default assumptions assume a 55% equity/45% debt ratio with a cost of debt and equity generating an overall cost of capital of 10.01%. Generally, the small companies in Illinois have equity/debt ratios that are higher than the default assumption and higher than the larger companies in Illinois. In discussions with the ICC Staff regarding the earnings analysis to be included in this case, the Staff and the IITA have agreed to use a cost of capital that reflects a debt/equity ratio of 40%/60%, a current cost of debt of 9% (pre-tax) and a cost of equity of 15.0% for the majority of the small companies. Use of these ratios provides an overall cost of capital of 12.6%. For the Frontier companies, a cost of equity of 13.8% was used. The lower cost of equity for Frontier recognizes that it